

Evolving Preliminary Ballona Alternatives

NOTE: These are a work in progress

Jan 8, 2007

The project team has been reviewing the ideas and comments provided by the participants in the November 18, 2006 Alternatives Workshop, and has been applying those ideas to the Habitat Concepts presented at the Workshop. The comments were organized so as to be reflected in one of 3 preliminary alternatives ranging from relatively less modification to the existing conditions, progressing to a more robust restoration approach.

The project team will be presenting 3 preliminary Alternatives integrating the comments from the Workshop to the SAC for initial discussion and comment on January 15. Based upon SAC input, potentially revised alternatives will be presented to the Stakeholder Working Group.

General Comments

1. Three alternatives are being developed for the feasibility study, with some items optional.
2. The SAC will provide advise on the ratios of upland, transition and high/mid and low marsh that would be typical historically and ecologically desirable on a regional basis. This will allow the proportions of habitat area and width to be established for each concept. Additional SAC input will help refine the alternatives.
3. The restoration program will likely be phased. For example it is assumed the Little League Fields will be eventually moved, but only once a new location has been found.
4. The Freshwater Marsh will be kept separate for the purposes of analysis.

Habitat Alternative 1 – Enhance Existing

5. Based on Habitat Concept 1.
6. In Area A the Seasonal wetlands will be kept as shown in Concept 1. This should be described as “Palustrine Wetland on Fill”. The two existing patches in Area A will be joined, if feasible, by some minor grading. Weeds would be controlled and pickleweed and alkali heath would be planted. A Seasonal High Salt Marsh palette may consist of:

<i>Salicornia virginica</i> /pickleweed	<i>Frankenia salina</i> /alkali heath
<i>Salicornia subterminalis</i> /glasswort	<i>Juncus acutus</i> /spiny rush
<i>Suaeda taxifolia</i> /wooly sea blite	<i>Monanthochloe littoralis</i> /shore grass
<i>Cressa truxillensis</i> /alkali weed	<i>Distichlis spicata</i> /saltgrass

Altering the hydroperiod of these areas would require lining and/or grading which may be an option to this alternative.

7. The upland area surrounding the seasonal wetland in Area A and Area C would be managed for weeds and planted to establish Coastal Sage Scrub, for example:

<i>Artemisia californica</i> /California sagebrush	<i>Eriogonum fasciculatum</i> /California buckwheat
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<i>Baccharis pilularis</i> /Coyote bush	<i>Eschscholzia californica</i> /California poppy
<i>Isomeris arborea</i> /Bladderpod	<i>Isocoma menziesii</i> /Spreading goldenbush
<i>Encelia californica</i> /California encelia	<i>Lotus scoparius</i> /Deerweed
<i>Eriogonum fasciculatum</i> /California buckwheat	<i>Lupinus succulentus</i> /Arroyo lupine
<i>Isocoma menziesii</i> /Spreading goldenbush	<i>Mimulus aurantiacus</i> /Coast monkey flower
<i>Lessingia filaginifolia</i> /California aster	<i>Nassella pulchra</i> /Purple needlegrass
<i>Ambrosia psilostachya</i> /Western ragweed	<i>Salvia mellifera</i> /Black sage
<i>Artemisia californica</i> /Coastal sagebrush	<i>Phacelia parryi</i> /Parry's phacelia
<i>Castilleja exserta</i> /Owl's clover	<i>Plantago ovata</i> /Woolly plantain
<i>Encelia californica</i> /California encelia	

A suggestion is to take advantage of the coastal location of the site and establish, in the more western areas of Area A, Maritime Succulent Scrub, for example:

<i>Isomeris arborea</i> /Bladderpod	<i>Artemisia californica</i> /Coastal sagebrush
<i>Cneoridium dumosum</i> / Bush rue	<i>Simmondsia chinensis</i> /Jojoba
<i>Coreopsis maritime</i> / Sea dahlia	<i>Eriogonum fasciculatum</i> (California buckwheat)
<i>Encelia californica</i> / California encelia	<i>Lotus scoparius</i> / Deerweed
<i>Euphorbia misera</i> / Cliff spurge	<i>Hemizonia fasciculatum</i> / Fascicled tarweed
<i>Nassella lepida</i> / Foothill needlegrass	<i>Malacothamnus fasciculatus</i> /Bushmallow
<i>Lepidium virginicum</i> / Pepper grass)	

8. The tidal wetlands will be as shown in Areas A and C. The wetlands shading will need to be extended from the Fiji Way culvert along the existing channel and into the Area C along the full length of the existing channel. The banks of the existing channel could be reduced in slope to provide wider habitat bands and reduce erosion. Salt Marsh vegetation would be planted. There is also the opportunity to create a transition zone along the length of the channel, for example:

<i>Salicornia subterminalis</i> /glasswort	<i>Suaeda taxifolia</i> /wooly sea blite
<i>Cressa truxillensis</i> /alkali weed	<i>Limonium californicum</i> /sea lavender
<i>Frankenia salina</i> /alkali heath	<i>Isocoma menziesii</i> /coast goldenbush
<i>Distichlis spicata</i> /saltgrass	<i>Lycium californicum</i> /box thorn

9. In Area B the desire is to enhance the existing tidal marsh in the east of the area (north of Culver) by the management of tidal flows into Area B through the existing 1135 tide

gate. The tide levels would be raised to maximize the tidal wetland as constrained by flooding and Savannah Sparrow habitat.

10. In Area B the existing Savannah Sparrow habitat is located mainly to the east of the main channel from the 1135 project, north of Culver Boulevard and west of the Jefferson-Culver intersection. The intent would be to create habitat that would enable the existing population to move eastward to allow more tidal inundation through the 1135 tide gates. The aim is to create the same amount of habitat within the area bounded by Culver Boulevard.

Suitable habitat would have to be created to the east of the existing areas in an area bounded to the south and east by Culver Boulevard. Areas of mustard would be removed and pickleweed planted. Tidal inundation would be increased during the non-breeding season to push the sparrow's to nest further east.

11. In area B, allow regular tidal inundation and enhance the existing non-tidal salt marsh in the area bounded by the Gas Company Road, Jefferson Boulevard and Freshwater Marsh. The existing culvert between Ballona Creek and the Freshwater Marsh will be daylighted, the slopes of the banks graded to provide salt marsh and transition habitat. It would be desirable to meander this channel if possible. Options are:

- Remove flap gates and allow tidal flow in the channel. Construct a tide gate at the southern end to control muted inundation of an area bounded by the Gas Company Road, Jefferson Boulevard and Freshwater Marsh. Freshwater discharge would enter this tidal channel. The existing freshwater marsh and riparian scrub running along the base of the bluffs would be squeezed.
- As above, but route freshwater directly into the marsh to create a brackish marsh.
- As above, but route freshwater directly to the existing freshwater marsh and riparian scrub running along the base of the bluffs to reduce some of the effects of increased tidal inundation.
- Allow no additional tidal inundation and keep the existing hydrologic connection which drains freshwater from Freshwater Marsh to Ballona Creek;

12. The riparian habitat along the base of the bluff in Area B could be enhanced by planting native species such as cottonwood. This could be done to increase the structure provided by the existing eucalyptus grove and, in the future, allow for its eventual removal.

13. A riparian enhancement along the north eastern edge of Area C could take advantage of runoff from the Marina Freeway. Willow scrub could be established in this area (e.g. arroyo willow). This would provide some filtering and habitat and could be combined with a treatment wetland. A "hands-on" wetland could also be developed.

14. Treatment wetlands have been identified in three location:

- Pershing Drive in Area B;
- Falmouth Avenue in Area B;
- Marina Freeway in Area C.

These need to be shown within the project site at this time. They are envisaged to be simply containment areas to allow some filtering of runoff and may be limited to trash management. Access by backhoe will be required for periodic maintenance.

Habitat Alternative 2 – Mid Wetland

15. Based on Alternative 1 and Habitat Concept 2 and 3.
16. Keep footprint of tidal wetland in Area A as shown in Concept 3, do not extend wetland in Area C beyond the present length of the channel. Do not hook wetland along edge of Fiji Way and over the existing parking lots. Show transition, high and mid marsh bands as well as channels.
17. In Area A show three connections (Marina Del Rey, Fiji Ditch and Ballona Creek). Any or all may be ultimately feasible. The connections should be open breaches if possible and each have their own channel network and drain their own defined watersheds. This would.
18. In Area B same as Habitat Alternative 1 except make eastern area bounded by Company Road, Jefferson Boulevard and Freshwater Marsh fully tidal. Show transition, high and mid marsh bands as well as channels.

Habitat Alternative 3 – Maximum Wetland

19. Based on Alternative 2 and Habitat Concept 4.
20. Maximize fully tidal wetlands in Areas A and B. Expand culvert under Lincoln and create wetland in northern section of Area C. Show transition, high and mid marsh bands as well as channels. Grade upland buffer and construct levees in Area B as required for flood protection purposes.
21. Options for tidal connections
 - as shown for Alternative 3. Remove all tide gates.
 - Lower Ballona Creek levees and construct wing wall in Area B to allow general flooding of wetland areas rather than through defined breaches.
 - Lower middle jetty of Ballona Creek to allow flood water to spill from Ballona Creek into Marina Del Rey.
 - Direct Ocean connection for Area through Del Rey Lagoon.
22. Add vernal pools to Area A and C in upland areas.
23. Remove roads where possible to create larger contiguous parcels:
 - Remove Culver Boulevard between Jefferson and Lincoln;
 - Remove Culver Boulevard between Jefferson and Marina Freeway.